



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10**

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OFFICE OF  
ENVIRONMENTAL CLEANUP

**NOV 07 2017**

**MEMORANDUM**

**SUBJECT:** Action Memorandum for the Grants Pass Mercury Emergency Response Site pursuant to the On-Scene Coordinator's delegated authority under Section 104 of CERCLA

**FROM:** Dale Becker, On-Scene Coordinator  
Emergency Response Unit  
Emergency Management Program

**THRU:** Beth Sheldrake, Manager  
Emergency Response Unit  
Emergency Management Program

**TO:** Administrative Record  
Grants Pass Mercury

**I. Purpose**

The purpose of this memorandum is to document the decision to initiate emergency removal actions described herein for the Grants Pass Mercury Emergency Response Site (Site) located in Grants Pass, Josephine County, Oregon pursuant to the On-Scene Coordinator's delegated authority under Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604.

**II. Site Information**

**A. Site Description**

Site Name:	Grants Pass Mercury
Superfund Site ID (SSID):	10QM
NRC Case Number:	1190712
EPA ID Number:	ORN001002278
Site Location:	1300 SW G Street Grants Pass, Oregon 97526
County:	Josephine
Lat/Long:	Latitude: 42.440694 Longitude: -123.341145
Potentially Responsible Party (PRP):	See Confidential Enforcement Addendum
Access:	Access Agreement in Place
NPL Status:	Not listed or proposed for listing

Removal Start Date:

September 19, 2017

**B. Site Background**

**1. Removal Site Evaluation**

On September 17, 2017, customers of the EZ Wash Laundromat reported to an employee that an indigent man who appeared to be under the influence of drugs was playing with mercury in the waiting area. The employees called 911 and Grants Pass police and fire responded. The man was arrested by the police, transported to Three Rivers Medical Center for assessment, and then transported to Josephine County Jail by police. The fire department removed visible mercury, left bagged waste on the scene, and notified Oregon Department of Environmental Quality (DEQ). Laundromat employees were directed to close the laundromat, heat, and ventilate. Customers' clothes were left in place until they could be assessed for contamination. DEQ notified the National Response Center (NRC) and requested EPA assistance on September 18, 2017.

EPA arrived on the scene on September 19, 2017. In order to assess the extent of contamination, EPA used a Lumex Mercury Vapor Analyzer to assess Grants Pass police equipment, Three Rivers Medical Center, and the laundromat where the spill occurred for the presence of mercury.

At the EZ Wash Laundromat visible mercury beads were found in a crack between the concrete floor and the southeast wall of the building adjacent to a children's play area. The maximum mercury vapor concentration directly above the visible mercury beads was 16,000 nanograms per cubic meter ( $\text{ng}/\text{m}^3$ ) at cool temperature during ventilation. Cleaning supplies were assessed for contamination: a shop-vac and a dirty mop bucket were contaminated, at levels greater than 82,000  $\text{ng}/\text{m}^3$  and 50,000  $\text{ng}/\text{m}^3$  respectively. It was determined that there was a risk of spreading contamination during normal activities such as sweeping or mopping. Customers' clothes that were left in dryers were not contaminated.

On September 19, 2017, a Lumex Mercury Vapor Analyzer was used to assess the path the individual who caused the contamination walked from the ambulance entrance to the examination area of the Three Rivers Medical Center. The assessment included both breathing zone and floor heights at the entry, entry carpets, exam area (including the baseboards, gurney, and privacy curtains), and linen corral. Mercury vapors were at background levels (ranging from 32 to 40  $\text{ng}/\text{m}^3$ ).

On September 20, 2017, Grants County Police started the car used to transport the individual who caused the contamination and placed the

heater on the maximum temperature setting with the vent on recirculate for approximately thirty minutes. The boots of the four responding officers were placed in plastic bags in a heated room for a similar time period. The breathing zone, surface of seats, and floor surface of the vehicle had mercury vapor concentrations similar to background levels (ranging from 62 to 68 ng/m<sup>3</sup>). The officers' boots also had mercury vapor concentrations similar to background levels (ranging from 61 to 69 ng/m<sup>3</sup>).

Because the individual who caused the contamination was transported in the police car immediately after handling mercury, the OSC determined that the car had the highest likelihood of contamination. Since the car was not contaminated, the OSC determined there was a low risk of mercury contamination being spread to other locations outside of the laundromat. Based on the low risk of a threat of contamination, the OSC determined that no further assessment of other locations or other objects, beyond the laundromat, police car and gear, and Three Rivers Medical Center, was needed.

**2. Physical location and Site characteristics**

The incident occurred at the EZ Wash Laundromat, 1300 SW G Street, Grants Pass, Josephine County, Oregon 97526 (Latitude 42.440694, Longitude -123.341145). Access is uncontrolled during business hours. The facility is located in a residential neighborhood with the nearest residence less than 100 feet away.

**3. Release or threatened release into the environment of a hazardous substance, pollutant or contaminant.**

Mercury is a hazardous substance pursuant to 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601(14).

**III. Threats to Public Health Welfare or the Environment**

**A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants.**

The conditions at the Site met the following factors which indicate that the Site was a threat to public health or welfare of the United States or the environment and removal action was appropriate under 40 C.F.R. § 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

**B. Applicable factors (from 40 C.F.R. § 300.415) which were considered in determining the appropriateness of a removal action:**

**1. Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].**

Visible mercury beads on the floor of the laundromat could be spread during normal activities such as sweeping or mopping. Liquid mercury can be easily transferred to clothing and transported to other locations and may vaporize resulting in exposure through inhalation. Mercury may damage the brain, kidneys, and developing fetus<sup>1</sup>.

**2. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].**

Mercury was partially removed by the local fire department and placed in a plastic biohazard bag. When the OSC arrived on the scene the bag containing mercury waste had been placed in another unlabeled bag then placed in a dumpster. The improper handling of the waste from the initial cleanup posed a risk of human exposure or release to the environment.

**3. The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)].**

The State of Oregon does not possess the capability to assess the extent of mercury contamination or conduct the removal and requested EPA assistance.

**IV. Selected Removal Action and Estimated Costs**

**A. Situation and Removal Activities to Date**

**1. Current Situation.**

Upon arrival on the scene the laundromat was closed to customers and doors were open for ventilation. Josephine County Public Health Department had directed employees to cease cleaning and carrying laundry to customers waiting outside.

**2. Removal activities to date.**

The fire department removed visible mercury and left bagged waste inside the laundromat. Laundromat employees closed the laundromat and alternated heating and ventilation. The bag of mercury containing waste was placed in another garbage bag and placed in a locked dumpster by laundromat employees.

**3. Enforcement**

See Confidential Enforcement Addendum.

**B. Planned Removal Actions**

**1. Proposed action description**

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<sup>1</sup> ATSDR, 1999, Mercury ToxFAQs, downloaded from <https://www.atsdr.cdc.gov/toxfaqs/tfacts46.pdf> on September 21, 2017

On September 19, 2017, all visible mercury was removed through a three step process:

1. visible mercury was stabilized with sulfur;
2. bulk sulfur and mercury was removed through sweeping; and
3. residual material was removed using a mercury recovery vacuum.

Removal operations were conducted in Level C PPE. Waste, including bagged mercury waste removed from the dumpster and contaminated cleaning supplies, was placed in two metal 55-gallon drums for disposal. The laundromat was locked and heated overnight.

On September 20, 2017, the breathing zone of the laundromat was assessed before ventilation. All mercury vapor concentrations in the breathing zones for both children and adults were below the occupational action level<sup>2</sup> of 3,000 ng/m<sup>3</sup> with maximum vapor concentrations at 1,524 ng/m<sup>3</sup> in the adult breathing zone and 1,614 ng/m<sup>3</sup> in the children's breathing zone. Customer's laundry was reassessed after allowing vapors in bags to build up overnight. All laundry was below the action level for personal items (one load of blankets and towels had a concentration of 1,300 ng/m<sup>3</sup>; five loads of clothes and one bag of personal items ranged from 65 to 350 ng/m<sup>3</sup>). The maximum mercury vapor concentration directly above the location where beads were removed was 8,000 ng/m<sup>3</sup>. The laundromat operator was advised that the mercury concentrations indicated it was safe to re-open and return all laundry to customers.

DEQ arranged for and funded a contract for disposal of all waste. On September 21, 2017, two drums of waste were transported to the DEQ contractor for disposal.

## **2. Contribution to remedial performance**

No remedial actions are planned at this Site. In the event a remedial action is needed, the actions taken will not have impacted remedial performance.

## **3. ARARs**

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the OSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

### **Federal ARARs:**

Resource Conservation and Recovery Act (RCRA) [42 U.S.C. § 6901],

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<sup>2</sup> ATSDR, 2012, Chemical Specific Health Consultation for Joint EPA/ATSDR National Mercury Cleanup Policy Workgroup. Action Levels for Elemental Mercury Spills.

Subtitle "C" - Hazardous Waste Management [40 C.F.R. Parts 260 to 279]. Federal hazardous waste regulations specify hazardous waste identification, management, and disposal requirements. For the management of RCRA hazardous wastes that are not Bevill-exempt, applicability of Subtitle C provisions depend on whether the waste are managed within an Area of Contamination (AOC). 55 FR 8760 (March 8, 1990). Applicable or relevant and appropriate requirements of RCRA Subtitle C (or the state equivalent) may be satisfied by off-site disposal, consistent with the Off-Site Rule, 40 C.F.R. § 300.440. RCRA Subtitle C also provides treatment standards for debris contaminated with hazardous waste ("hazardous debris"), 40 C.F.R. § 268.45, although the lead agency may determine that such debris is no longer hazardous, consistent with 40 C.F.R. § 261.3(f)(2), or equivalent state regulations.

Mercury Export Ban Act (MEBA) of 2008. The Mercury Export Ban Act of 2008 (MEBA) amends the Toxic Substances Control Act (TSCA) to prohibit the export of elemental mercury from the United States effective January 1, 2013. MEBA also prohibits the sale, distribution, or transfer of elemental mercury under the control or jurisdiction of federal agencies to any other federal, state, or local government agency or to any private individual or entity, except for the transfer of elemental mercury to facilitate storage under MEBA.

#### **State ARARs:**

Oregon Environmental Cleanup Rules (OAR 340-122) are potentially applicable for the establishment of cleanup levels and the selection of response actions at the Site. OAR 340-122-0040(2) requires that hazardous substance response actions achieve one of four standards: 1) acceptable risk levels, 2) generic soil numeric cleanup levels, 3) remedy-specific cleanup levels provided by ODEQ as part of an approved generic remedy, or 4) background levels in areas where hazardous substances naturally occur. The Oregon Hazardous Substance Remedial Action Rules require consideration of treatment of hot spots to the extent feasible (OAR 340-122-0040).

Oregon Hazardous Waste Regulations (OAR 340-100 to 340-106). State regulations, which may or may not be authorization pursuant to RCRA, provide standards for the identification, management, and disposal of solid and hazardous waste. The state regulations pertaining to determining whether a waste is hazardous are potentially applicable, and if any waste is determined to be hazardous, then requirements relating to disposal will be ARARs.

Oregon Solid Waste Management Rules (OAR 340-093 through -097) are potentially applicable to any treatment and disposal of solid waste that

may be generated at the Site during conduct of the response action.

Oregon General Emission Standards for Particulate Matter (OAR 340-208-0100 through -210) are potentially applicable to visible emissions and nuisance conditions that may be generated by conduct of the cleanup action.

#### **To-be-Considered Materials:**

To-be-Considered Materials (TBCs) are non-promulgated advisories or guidance issued by Federal or State governments that are not legally binding, and do not have the status of potential ARARs. However, in many instances TBCs may be considered along with ARARs in determining the level of cleanup for protection of health or the environment.

#### EPA/ATSDR Guidance Document for Mercury Vapor Action Levels

Per EPA/ATSDR guidance, ambient conditions in residences should not exceed 1,000 ng/m<sup>3</sup> of mercury near the surface of the floor or in child or adult breathing zones. At or below this level, normal occupancy for even the most sensitive persons is acceptable, assuming normal conditions of use. In commercial settings such as retail establishments ATSDR recommends less than 3,000 ng/m<sup>3</sup> of mercury in the breathing zone. ATSDR recommends headspace readings for belongings that may have been contaminated by vapors from a mercury spill in the range of 3,000 to 6,000 ng/m<sup>3</sup> of mercury be considered protective of human health. Measurements should be taken at the vents of appliances or headspace of bags containing the belongings being evaluated. Bags should be warmed passively to ambient conditions and appliances/electronics should be at operating temperatures. EPA/ATSDR criteria for use of family vehicles under normal conditions is 3,000 to 6,000 ng/m<sup>3</sup> of mercury. Exposure duration in most vehicles is short compared with other settings, allowing a higher concentration as the floor of this range than the level for residences. The ceiling of the range is based on the presumption that liquid mercury may still be present but not yet discovered.

#### **4. Project Schedule**

All work was completed as of September 21, 2017; no further work is planned.

#### **C. Estimated Costs\***

Contractor costs (ERRS/START staff, travel, equipment)	\$25,000
Other Extramural Costs (Strike Team, other Fed Agencies)	--

Contingency costs (20% of subtotal)	\$5,000
<b>Total Removal Project Ceiling</b>	<b>\$30,000</b>

\* The above costs are an estimate of extramural costs that count toward the Removal Ceiling. Other EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for all costs incurred by the EPA as set forth in Section 107 of CERCLA.

**V. Expected Change in the Situation Should Action Be Delayed or Not Taken**

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or the environment.

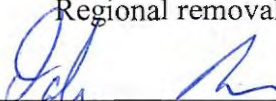
**VI. Outstanding Policy Issues**

None.

**VII. Approvals**

This action memorandum represents the selected emergency response removal action for this Site, developed in accordance with CERCLA, and not inconsistent with the NCP. This decision is based on the administrative record for the Site.

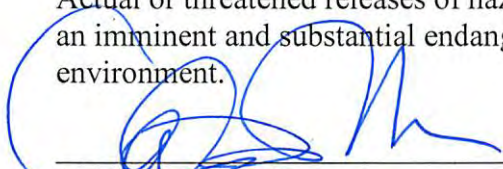
Conditions at the Site meet the NCP Section 300.415(b) criteria for a removal action, and through this document and pursuant Delegation R10 14-2, dated June 26, 2017, which redelegates authority to the On-Scene Coordinator for CERCLA Section 104 emergency response actions costing up to \$250,000, I approve the proposed removal actions described herein. The total project ceiling is \$30,000; this amount will be funded from the Regional removal allowance.

  
 Dale Becker  
 Federal On-Scene Coordinator

11/7/2017  
 Date

**VIII. Endangerment Determination under CERCLA Section 106**

Actual or threatened releases of hazardous substances from this Site may present an imminent and substantial endangerment to public health, welfare or the environment.

  
 Calvin Terada, Manager  
 Emergency Management Program

10/30/17  
 Date


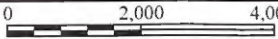


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 <b>ecology and environment, inc.</b> Global Environmental Specialists Seattle, Washington	EZ WASH LAUNDROMAT MERCURY RESPONSE Grants Pass, Oregon		Figure 1 SITE LOCATION MAP	
	 Approximate Scale in Feet		Date: 9/26/17	Drawn by: AES 10:START-IV\TO21T2SS6\fig 1